

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

- 1 1. (Currently Amended) A system for displaying a three-dimensional image of an organ or structure inside the body, the system comprising:
 - 3 a processor configured to be communicatively coupled to a probe, the
 - 4 probe being configured to be located in or adjacent to the organ or structure inside the
 - 5 body;
 - 6 memory coupled to the processor and configured to store image data
 - 7 pertaining to the organ or structure inside the body; and
 - 8 a three-dimensional display coupled to the processor and configured to
 - 9 simultaneously display the three-dimensional image and a representation of the probe,
 - 10 wherein the image data of the three-dimensional display is acquired
 - 11 prior to the probe being positioned inside the body.
- 1 2. (Original) The system of claim 1, wherein the representation of the probe
- 2 is registered with the three dimensional image of the organ or structure inside the
- 3 body.
- 1 3. (Original) The system of claim 1, wherein the representation of the probe
- 2 is registered with the three dimensional image of the organ or structure inside the
- 3 body using a localization system.
- 1 4. (Original) The system of claim 1, wherein the organ or structure inside the
- 2 body is a heart.
- 1 5. (Original) The system of claim 1, wherein the probe is a catheter.
- 1 6. (Original) The system of claim 1, wherein the system is an
- 2 electrophysiology system.
- 1 7. Cancelled.

1 8. (Original) The system of claim 1, wherein the image data is acquired
2 during the image-guided intervention procedure using an internal medical imaging
3 device.

1 9. (Original) The system of claim 1, wherein the system is further configured
2 to display a map of the electrical properties of the organ or structure inside the body.

1 10. (Original) The system of claim 1, wherein the system is further configured
2 to display historical data related to the organ or structure inside the body.

1 11. (Original) The system of claim 1, wherein the system is further configured
2 to display auxiliary data related to an image-guided interventional procedure.

1 12. (Original) The system of claim 1, wherein the display is further
2 configured to display visual navigational information related to an image-guided
3 intervention procedure.

1 13. (Original) The system of claim 1, wherein the three-dimensional display is
2 a spatial three-dimensional display.

1 14. (Currently Amended) A system for displaying a three-dimensional
2 image of a heart, the system comprising:

3 a processor configured to be communicatively coupled to a probe;
4 memory coupled to the processor and configured to store image data
5 pertaining to the heart; and

6 a three-dimensional display coupled to the processor and configured to
7 simultaneously display the three-dimensional image of the heart and a representation
8 of the probe;

9 wherein three-dimensional display is comprised of pre-operative image
10 data acquired prior to the probe being positioned inside the body.

1 15. (Original) The system of claim 14, wherein the representation of the probe
2 is registered with the three dimensional image of the heart.

1 16. (Original) The system of claim 14, wherein the representation of the probe
2 is registered with the three dimensional image of the heart using a localization system.

1 17. (Original) The system of claim 14, wherein the system is an
2 electrophysiology monitoring system.

1 18. (Original) The system of claim 14, wherein the probe is a catheter
2 configured to collect data representative of the electrical properties of the heart.

1 19. (Original) The system of claim 14, wherein the system is further
2 configured to display a map of the electrical properties of the heart.

1 20. (Original) The system of claim 14, wherein the three-dimensional display
2 is a spatial three-dimensional display.

1 21-28. Cancelled.

1 29. (Currently Amended) A system for displaying a three-dimensional
2 image of an organ or structure inside the body, the system comprising:
3 memory configured to store a first set of image data pertaining to the
4 organ or structure inside the body;
5 a processor coupled to the memory and configured to be
6 communicatively coupled to an imaging device and a probe, the
7 imaging device being configured to generate a second set of image
8 data pertaining to the organ or structure inside the body, and the probe
9 being configured to be located in or adjacent to the organ or structure
10 inside the body, the processor further configured to generate the three-
11 dimensional image using the first set of image data and the second set
12 of image data; and
13 a three-dimensional display coupled to the processor and configured to
14 simultaneously display the three-dimensional image and a representation of the probe,
15 wherein three-dimensional display is comprised of pre-operative image
16 data acquired prior to the probe being positioned inside the body.

1 30. (Original) The system of claim 29, wherein the system is configured to
2 provide a warning related to an image-guided interventional procedure.

1 31. (Original) The system of claim 29, wherein the system is configured to
2 provide a warning when the first set of image data differs from the second set of
3 image data according to a predetermined criterion.

1 32. (Original) The system of claim 29, wherein the system is configured to
2 determine a first estimate of the location of the probe and a second estimate of the
3 location of the probe and to provide a warning when the first estimate differs from the
4 second estimate according to a predetermined criterion.

1 33. (New) The system of claim 29, wherein the three-dimensional display
2 further includes a visual indication of a change in color of the pre-operative image
3 data in response to detection within a predetermined tracked distance relative to the
4 probe.

1 34. (New) A system for displaying a three-dimensional image of a heart, the
2 system comprising:

3 a processor configured to be communicatively coupled to a probe;
4 memory coupled to the processor and configured to store image data
5 pertaining to the heart; and

6 a three-dimensional display coupled to the processor and configured to
7 simultaneously display the three-dimensional image of the heart and a representation
8 of the probe, wherein the three-dimensional display further includes a visual
9 indication of a change in color of at least a portion of the three-dimensional image in
10 response to detection within a predetermined tracked distance relative to the probe.

1 35. (New) The system of claim 1, wherein the three-dimensional image
2 includes a pre-operative image data that is weighted to match an acquired intra-
3 operative image data.

1 36. (New) The system of claim 1, wherein the three-dimensional display further
2 includes a visual indication of a change in color of the pre-operative image data in
3 response to detection within a predetermined tracked distance relative to the probe.

1 37. (New) The system of claim 14, wherein the pre-operative image data is
2 weighted to match an acquired intra-operative image data.

1 38. (New) The system of claim 14, wherein the three-dimensional display further
2 includes a visual indication of a change in color of the pre-operative image data in
3 response to detection within a predetermined tracked distance relative to the probe.

1 39. (New) The system of claim 29, wherein the pre-operative image data is
2 weighted to match an acquired intra-operative image data.

1 40. (New) The system of claim 29, wherein the three-dimensional display further
2 includes a visual indication of a change in color of the pre-operative image data in
3 response to detection within a predetermined tracked distance relative to the probe.